

ABSTRACT

A system for automatically defining the spatial arrangement of structural components and optimizing the functional positions and/or quantities thereof is useful for design and production of an aircraft cabin. The basic aircraft type is input into a configuration tool of a data processing system. The aircraft-specific geometry is stored in, loaded from and represented by a drawing module of the system. The required components are geometrically defined by stored data and position rules, and are combined with the aircraft-specific geometry in the drawing module. The components and the aircraft-specific geometry are spatially optimally configured relative to each other according to a rule set which accounts for specific customer requirements, in the configuration tool. Production documents such as drawings and parts lists are automatically generated by a document generating tool of the system after inputting project-related data.